

(2) Amended Claims

1. (Currently amended) ~~Method~~ A method for determining ~~the~~ propulsion force (40), its eccentricity (52) in relation to ~~the~~ neutral axis (N) and/or ~~the~~ advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in ~~soft, stony and/or rocky~~ ground, using a pressing device (24) ~~and~~ on ~~the~~ faces of fluid-filled expansion elements (44) arranged in ~~the~~ joints (70) of ~~the~~ pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), ~~the~~ fluid pressure (p) and/or ~~the~~ deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and ~~the~~ values calculated are stored and/or compared with stored standard values.
2. (Currently amended) ~~Method~~ A method for controlling ~~the~~ propulsion force (40), minimising its eccentricity (52) in relation to the neutral axis (N) and/or ~~the~~ advance direction (28) on advance of pipe elements (18) to produce a longitudinal structure in ~~soft, stony and/or rocky~~ ground, using a pressing device (24) ~~and~~ on ~~the~~ faces of fluid-filled expansion elements (44) arranged in ~~the~~ joints (70) of ~~the~~ pipeline (14), characterised in that in at least a part of the expansion elements (44) which are distributed over the entire length of the pipeline (14), ~~the~~ fluid pressure (p) and/or ~~the~~ deformation of the joints (70) is measured, and from these parameters the propulsion force (40) and eccentricity (52) are calculated and ~~the~~ values calculated converted into control commands for the pressing device (24) and/or ~~the~~ individual fluid supply to or individual fluid discharge from the expansion elements (44).
3. (Currently amended) ~~Method~~ A method according to claim 1 or 2, characterised in that the deformation, ~~preferably expansion or shear deformation,~~ is measured in all joints (70).
4. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that the deformation, preferably expansion in a joint (70), is measured at least at three points ~~preferably~~ distributed regularly over the periphery and the geometry of the expansion plane of the joint (70) is determined.
5. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that ~~the~~ fluid pressure (p) of an expansion element (44) which are is divided into sections ~~sectors~~ and the fluid pressure (p) of each sections is measured ~~in each section (A, B, C)~~ and individual fluid

quantities are supplied to or extracted from ~~in~~ sections by ~~corresponding~~ control command corresponding to the fluid pressure measured for the sections.

6. (Currently amended) ~~Method~~ A method according to claim 5, characterised in that a header piece (30) is controlled with ~~the~~ a front expansion element (44).
7. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that the fluid pressure (p) is measured in an expansion element (44) filled with a pressure-resistant fluid.
8. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that the fluid ~~45~~ pressure (p) is measured in an expansion element (44) which in cross-section is circular, oval, elliptical or round in the direction of at least one face (42) of the pipe element (18).
9. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that the ratio of force exerted (K₁) to force permitted (K₂) is calculated and monitored periodically or continuously, and when

$$\frac{K_1}{K_2} \geq 1$$

~~preferably~~ an alarm is triggered.

10. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that ~~the~~ parameters ~~which~~ are measured on pre-compression of the expansion element (44) in ~~the~~ pressing shaft (12) and the measured values of the parameters are stored.
11. (Currently amended) ~~Method~~ A method according to any of claims 1 or 2, characterised in that analysis takes calculation of values and comparing with stored values or converting into control commands take place in real time.
12. (Currently amended) ~~Use of the~~ A quality control method comprising: performing the steps according to claim 1 for quality control to obtain records, qualitatively or quantitatively evaluating the records and implementing quality control based on the evaluation.